

S/N 09/694,927

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	HUANG ET AL.	Examiner:	TRAN LIEN, THUY
Serial No.:	09/694,927	Group Art Unit:	1761
Filed:	OCTOBER 24, 2000	Docket No.:	8863.73US01
Title:	FOOD PRODUCT WITH ENHANCED CRISPNESS		

CERTIFICATE UNDER 37 CFR 1.6(d): I hereby certify that this paper is being transmitted by facsimile to the U.S. Patent and Trademark Office on February 5, 2002.

By: Mara E. Licpa  
Name: Mara E. LicpaRESPONSE TO FINAL OFFICE ACTION

FAX RECEIVED

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GROUP 1700

OFFICIAL

Box AF  
Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

This paper is being submitted in response to the final Office Action mailed December 4, 2001. Claims 1-4, 7-14 and 16-27 are pending. Reconsideration of the application, in view of the following remarks, is requested.

103 Rejections

All pending claims 1-4, 7-14 and 16-27 were rejected under 35 U.S.C. 103 as unpatentable over Savage, U.S. Patent No. 4,812,323. Applicants respectfully disagree and request that this rejection be withdrawn.

The Savage reference has been generally discussed in the previous response. Savage teaches a typical, conventional cookie recipe that utilizes corn syrup solids.

The invention claimed by the pending claims is a dough or batter composition, a baked good made from the composition, or a filled food product made from the composition, the composition comprising flour, water and a sweetener, the sweetener comprising at least one of a high molecular weight starch hydrolysate having a DE of 1 to 20 and a crystalline hydrate former, and the composition, when baked to a thickness of about 2.2 mm, has a modulus of at

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least 200 g/mm<sup>2</sup> at a moisture content of 10%. The invention is to a product that stays crispy when exposed to high levels of moisture.

Applicants assert that there is no suggestion in Savage, nor would the disclosure of Savage lead one to, the claimed invention. The present invention is directed to a composition that provides a baked good that remains crispy under high moisture levels; this crispiness is quantified as modulus. Savage merely molds cookie dough in order to provide a concave bowl. Savage does not disclose using either a crystalline hydrate former or a high molecular weight starch hydrolysate having a DE of 1 to 20, nor is there any disclosure in Savage that would lead one to these materials in order to produce crispy products. There is no suggestion that products with a DE of 1 to 20 would provide the desired modulus. Savage also does not disclose a composition as claimed, the composition having the ingredients recited in the pending claims. The teachings of Savage do not make obvious a crispy product that is made from a composition including a high molecular weight starch hydrolysate having a DE of 1 to 20 and a crystalline hydrate former.

Savage discloses a cookie recipe that includes corn syrup solids. The Examiner contends that the corn syrup solids of the disclosed cookie recipe could be any DE and that one skilled in the art would have known that any type of corn syrup solids can be used. Applicants respectfully disagree.

Applicants maintain that the corn syrup solids used by Savage are common corn syrup solids having a DE of generally 36 to 43, because, it is customary in the baking art that unless the DE is provided, the corn syrup solids are the typical or common corn syrup solids having a low molecular weight and high DE (generally 36 to 43 DE). Another argument that conventional corn syrup solids were used by Savage is the lack of water in the cookie recipe disclosed by Savage. When conventional corn syrup solids are used, water is avoided, since conventional corn syrup solids attract and bind moisture, resulting in a soggy, undesirable product.

The Examiner also contends that the selection of the DE value would be an obvious matter of choice depending on the degree of sweetness desired. Applicants do agree that a material with a higher DE value is sweeter than one with a lower DE value, however, Applicants cannot agree that selecting a low DE value, specifically 1 to 20 DE, is obvious.

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Applicants have found that the DE level affects other properties than merely the sweetness of the product. In particular, the higher value DE materials lead to more undesirable properties. For example, as the DE value increases, the amount of browning during cooking or baking decreases. See, for example, page 13, lines 22-24 of the specification. Also, as the DE value increases, more of the ingredient is needed in order to get the desired crispiness. See, for example, page 10, lines 23-27. And as shown in Figure 6 and described at page 10, line 27 through page 11, line 2, as the overall DE value increases, the crispiness of the baked good (i.e., the modulus) decreases as the moisture content increases. These reasons, among others, would not lead one to select a starch hydrolysate having a high DE value merely because a sweeter product is desired. Applicants have found that in fact, it is desirable to avoid the higher DE values, that is, those having a DE value higher than 1 to 20 DE.

Applicants amended the claims in the previous amendment to recite that the high molecular weight starch hydrolysate used in the present invention has a DE of 1 to 20. The application, as originally drafted, did indicate that typically values of 1 to 42 DE are suitable for the present invention. Applicants maintain that certain recipes or formulations utilizing starch hydrolysates having DE values of 1 to 42 would provide baked goods having the desired modulus, but Applicants have found that baked goods made with high molecular weight starch hydrolysates having a DE of 1 to 20 have better properties than products made with those having DE values greater than 20. Some of these reasons are provided above, and include: decreased amount of browning during cooking or baking; more of the ingredient is needed in order to get the desired crispiness; and, as the DE increases, the overall absorption of water by the product increases, thus decreasing the modulus and the crispiness.

At least for these reasons, Applicants have found that for high molecular weight starch hydrolysates, those having DE values of 1 to 20 are preferred over those having higher DE values. Using a high molecular weight starch hydrolysate having a DE of 1 to 20 to provide a crispy product is not obvious in view of Savage.

In sum, Applicants contend that the pending claims are unobvious over Savage, and withdrawal of this rejection is requested.

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FROM-Merchant & Gould

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SUMMARY

Applicants submit that the claims are in proper form for allowance and respectfully request reconsideration and allowance thereof. A Notice of Allowance is requested.

The Examiner is invited to contact the undersigned representative if it will facilitate prosecution of this application.

Respectfully Submitted,

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Date: 5 February  
2002

By

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